E1637

DVD-E616P2

DVD-ROM Drive

User Guide

First Edition V1
May 2004

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Notices

Federal Communications Commission Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with manufacturer's instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

sult the dealer or an experienced radio/TV technician for help.

WARNING! The use of shielded cables for connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Canadian Department of Communications Statement

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

This class B digital apparatus complies with Canadian ICES-003.

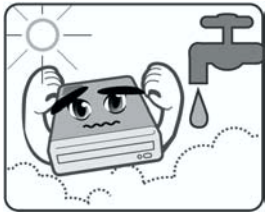
Safety information

Observe the following precautions before installing and using the drive.

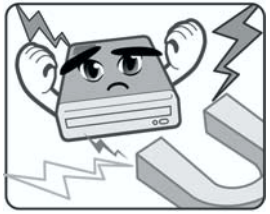
Installation notices

Do not place this device in an unstable position, or on vibrating surfaces.

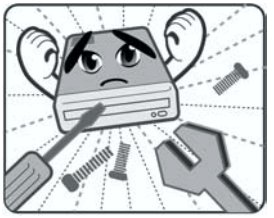
Do not place this device under direct sunlight, or in humid or damp places.



Do not use or place this device near magnetic fields, televisions, or radios to avoid electronic interference that affects drive performance.



Do not attempt to disassemble or repair the drive. Opening the drive may result to exposure to laser radiation.



Using the device

- Use of any controls, adjustments, or procedures other than those specified in this manual may result to hazardous radiation exposure.
- Do not attempt to disassemble the drive.
- Do not move the device from a cold to a warm or hot environment. Drastic change of temperature is harmful to the device.
- Before moving or uninstalling the drive, remove disc from it, if any.
- Prevent liquids or any metal to get into the device. If this situation occurs, contact your retailer for help.
- Do not use any evaporating solvents to clean the device. If you accidentally sprayed any solvent on the device, use a clean cloth to wipe it. You may also use a neutral cleaner to dilute the solvent to easily wipe it from the device.
- Try not to interrupt the supply of power while the device is in reading or writing mode.
- Do not place damaged or warped discs inside the device. A warped disc may break while in use and damage the device.
- Do not place discs into the device immediately if they came from a cold environment, specially during cold seasons. Wait until the discs have reached room temperature.

Conventions used in this guide

To make sure that you perform certain tasks properly, take note of the following symbols used throughout this guide.

WARNING/DANGER: Information to prevent injury to yourself when trying to complete a task.

CAUTION: Information to prevent damage to the components when trying to complete a task.

IMPORTANT: Information that you MUST follow to complete a task.

NOTE: Tips and additional information to aid in completing a task.

Package contents

Upon opening your ASUS DVD-E616P2 drive package, check if all the following items are present and in good condition. If any of the items is damaged or missing, contact your retailer immediately.

- ASUS DVD-E616P2 DVD-ROM Drive
- Audio cable
- Mounting screw package
- User guide (English) with multi-language Quick Installation Guide
- DVD playback software CD

The above items are available in retail boxes only.

Welcome

TThank you for buying the ASUS DVD-E616P2 Drive!

Read the instructions and important information in this manual for proper use and installation of this device.

Product introduction

Specifications

The DVD-E616P2 has the following specifications:

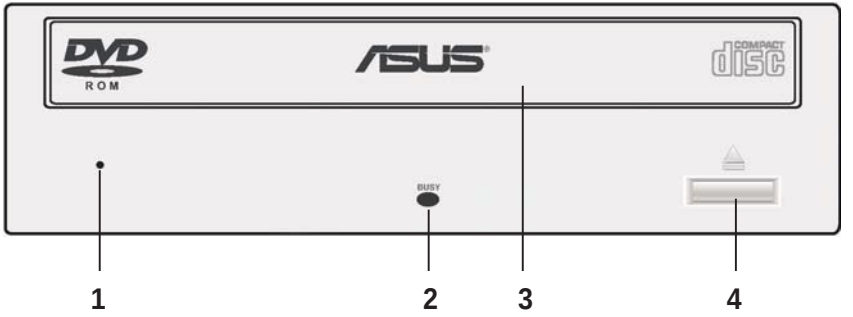
Sustained transfer rate	**DVD** **CD**	16x max. ~ 21640KB/sec 48x max. ~ 7200KB/sec
Random access time	**DVD** **CD-ROM**	120 ms 120 ms
Interface		ATAPI specification
Data Buffer Size		512 KB/sec

Specifications

Application Discs		12cm or 8cm diameter, 1.2mm thick
	DVD	DVD-5, DVD-9, DVD-10, DVD-18 DVD-ROM, DVD-R, DVD-RW DVD-Video, DVD+R, DVD+RW
	CD	Audio CD, CD-ROM/XA, Video CD, CD-I, Multi-session photo CD, Karaoke CD, CD-Extra, CD-Text
OS Compatibility		Windows® 98SE/ME/2000/NT/XP, DOS 6.xx, Linux
Power Supply		DC 5 x (+/- 5%) V DC 12 X (+/- 5%) V
Dimensions		148.5 (w) x 173 (d) x 42.6 mm (h)
Mass		830 g

Refer to “Technical information” on page 30 for detailed specifications.

Front panel

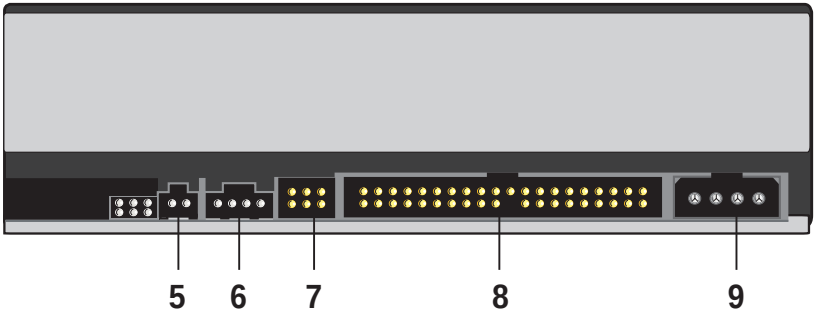


1. **Emergency eject pinhole**
   The Emergency Eject Pinhole allows you to manually eject a disc when the Eject Button does not work due to power failure or software problems. Insert the emergency eject pin into this hole to manually eject the tray and the disc. Refer to page 27 for details.

Turn off your computer before using the Emergency Eject Pinhole.

2. **Disc loading tray**
   This tray holds the disc. Open the loading tray by pressing the Eject Button. Place a CD or DVD on the tray with the label side up. Press the Eject Button or push the front part of the tray to load the disc.
3. **READ indicator**
   This LED lights up when data is being read on the disc.
4. **Eject button**
   Press this button to eject the tray and load or remove a disc.

Rear panel



5. **Digital audio output**
   This connector is for a 2-pin digital audio cable that attaches a sound card to the drive.
6. **Analog audio output**
   This connector is for an analog audio output cable. This connector is compatible with “Molex 70553”.

Pin	Name	Description
1	L	Left channel audio output
2 & 3	G	Ground
4	R	Right channel audio output

7. Device configuration jumper

These pins allow you to select either Master, Slave, or Cable Select mode for the DVD-ROM device. (*Refer to page 18 for jumper settings.*)

Pin	Name	Switch Status	Description
1	MA	ON	Master mode
2	SL	ON	Slave mode
3	CS	ON	Cable select mode

8. Host IDE interface

This connector is for a 40-pin IDE cable to connect the drive to the IDE interface on the motherboard.

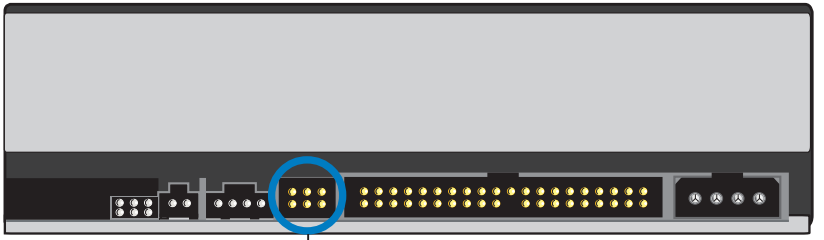
9. DC input

This DC connector is for a 4-pin power cable from the system power supply.

Setting the jumper terminals

Configure the jumpers to set the device to master or slave mode before installing it to the computer chassis. Use jumper blocks to short the pins to your desired setting.

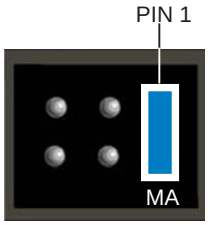
Make sure you correctly put the jumper blocks over the pins. Failure to do so can cause irreparable damage to the drive!



Jumper terminals

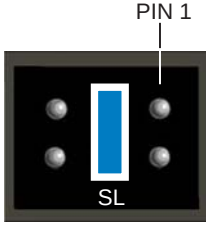
Master Mode

Cover the two pins labeled MA (see illustration) to set the DVD-ROM drive as a secondary master drive. This is possible only if your computer supports four IDE devices. The hard disk in the computer is set as Primary Master.



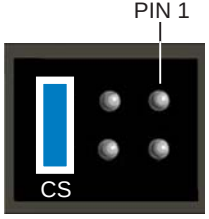
Slave Mode

Cover the two pins labeled SL (see illustration) to set the drive as a slave device if your computer supports only two IDE devices. If your computer supports four IDE devices, this setting sets your DVD-ROM drive either as a Primary Slave or a Secondary Slave.



Cable Select Mode

Cover the two pins labeled CS (see illustration) if your computer supports a Cable Select (CSEL) signal. You need an exclusive interface cable for this setting. Refer to your computer manual for details.

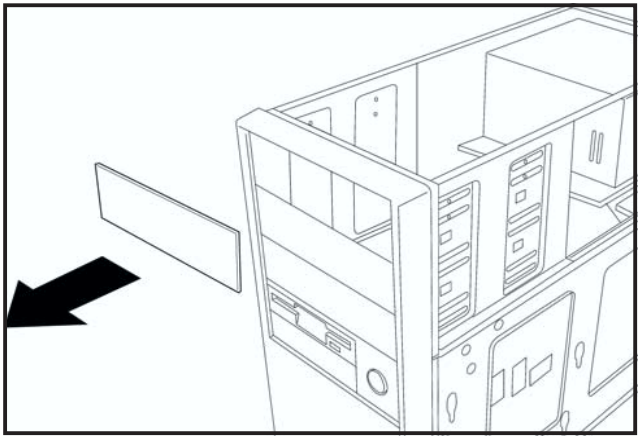


Installing the drive

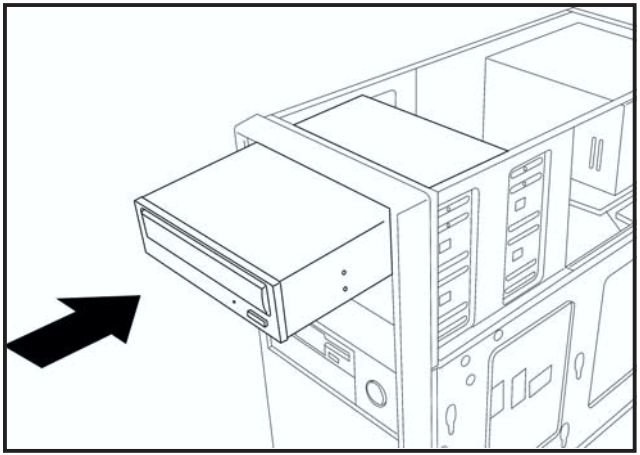
Follow these steps to install the drive into the computer chassis.

Refer to your computer manual for specific instructions on opening the chassis and installing drives.

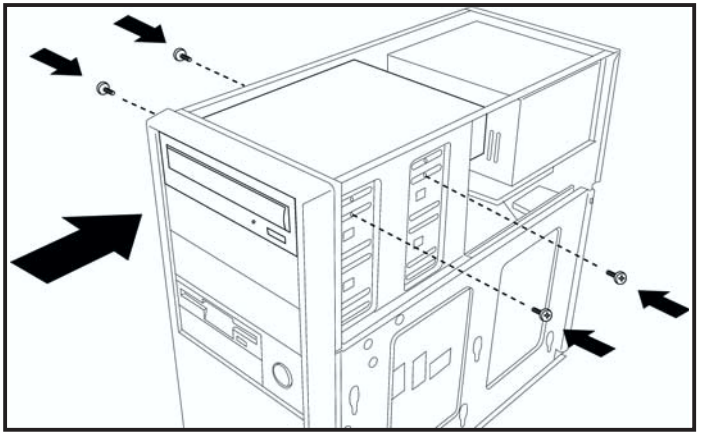
1. Remove the cover of an empty 5.25-inch drive bay.



2. Carefully insert the drive into the bay and push it inward until it is flushed to the chassis front panel. The holes on the sides of the drive should align with the holes on the drive bay.



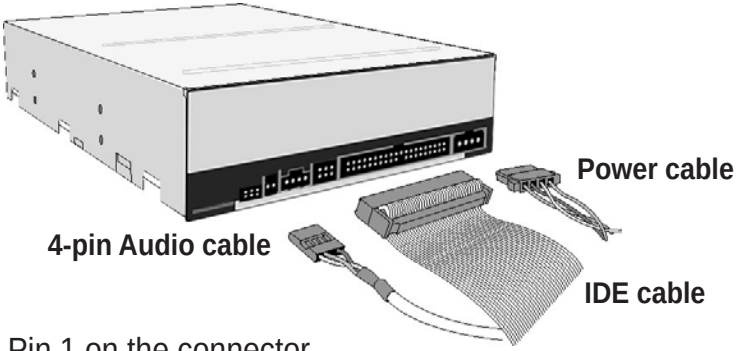
3. Secure the drive with screws that came with the drive package. Use two screws on each side of the drive.



Depending on the space on your chassis, you may need to connect the drive cables before securing the drive into the chassis. For cable connections, proceed to the following section, “Connecting the Drive Cables.”

Connecting the drive cables

1. Connect the power cable plug to the power connector on the rear panel.
2. Connect the 40-pin IDE cable plug to the IDE connector, matching the red pin stripe on the cable with Pin 1 on the connector.



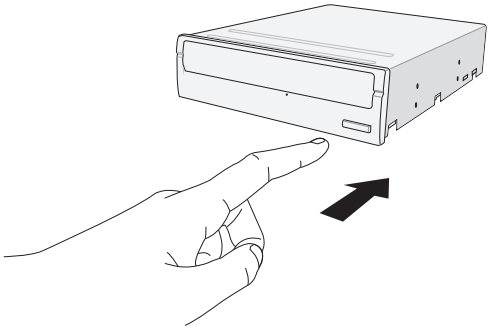
3. If your computer has a sound card or an onboard audio feature, connect an audio interface cable to the 4-pin analog audio connector on the rear of the drive. Connect the other end of the audio cable to the connector on the sound card or on the 4-pin CD connector on the motherboard.

All the cable plugs are slotted so that they fit in only one orientation. If a plug does not fit in completely, try reversing it. DO NOT apply too much force when fitting the cable plugs.

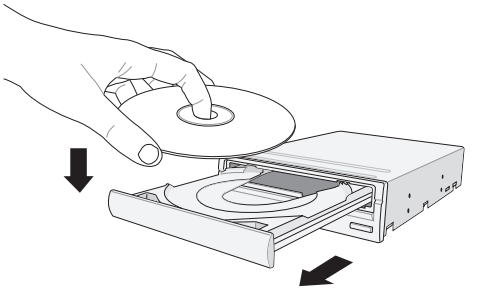
Drive basics

Placing a disc into the drive

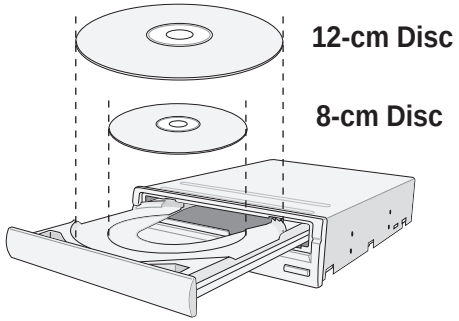
1. Press the eject button on the front of the drive to eject the tray.



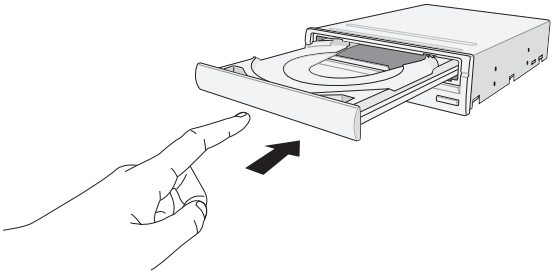
2. When the drive tray ejects out of the drive, place the disc on the tray with the label (printed) side up.



If you are using a 12-cm disc, place it on the tray making sure that it fits the outer circular border. This border helps hold the disc in place. If you are using an 8-cm disc, place it on the inner circular border on the tray.



3. Press the drive eject button or lightly push the center of the drive tray to replace the tray inside the drive.



Ejecting a disc from the drive

1. Press the STOP/EJECT button on the front of the drive to eject the tray.
2. Carefully remove the disc from the tray.
3. Press the drive STOP/EJECT button or lightly push the center of the drive tray to load the tray back into the drive.

Using the emergency eject pinhole

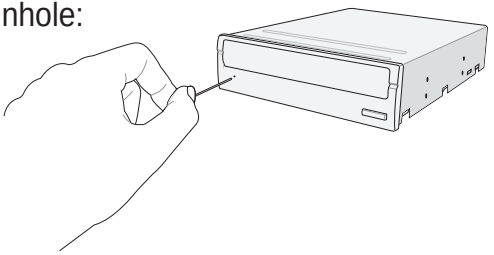
The emergency eject pinhole on the front of the drive allows you to manually eject the drive tray and remove a disc from the drive in the following instances:

- supply of power to the computer is cut due to electrical power outage
- the drive malfunctions

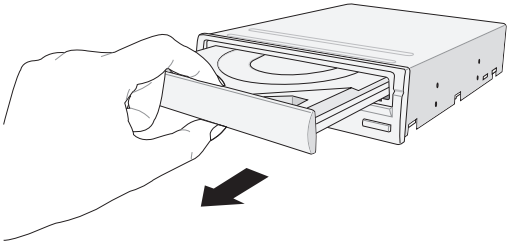
Use the manual method only as a last resort when the eject button does not work. Make sure that you have turned off your optical drive before ejecting the drive tray. Locate the power switch button on the rear panel to turn off the drive.

To eject the drive tray using the emergency pinhole:

1. Insert the eject pin that came with the drive package. You can also use a paper clip or any pointed rod small enough to fit into the emergency pinhole.



2. Carefully pull the tray out and remove the disc.



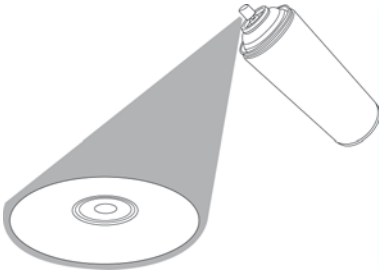
Do not force the tray open; wait until the eject pin has dislodged the tray to avoid breaking the tray panel.

Using compact discs

Take note of the instructions in this section when using compact discs. These instructions will help you avoid damaging the discs and your drive.

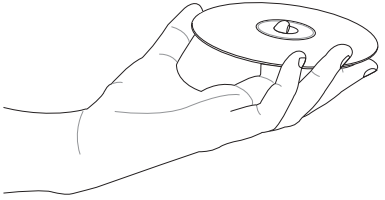
Cleaning a disc

Spray the disc with compressed air for about five seconds to get rid of the dust on a disc.



Handling a disc

Hold a disc by the edges. Do not touch the disc surface.



Technical information

Environmental specifications

Temperature	Operation Storage	+5°C to +45°C - 20°C to +60°C
Humidity	Operation Storage	20% to 80% non-condensing 15% to 85% non-condensing
Vibration	Operation Storage	0.2 G peak at 10 ~ 300 Hz 1.5 G peak at 10 ~ 300 Hz
Impact	Non-operation Packaged	1 oct/min – no damage Less than 50G - (half sine wave, 11 ms/10s interval) 1 oct/min – no damage 76 cm high (1 corner, 3 edges, 6 surfaces)
Acoustic	Sound pressure	Less than 40 dB (microphone should be 1 meter away from the drive)
Reliability	MTBF	100,000 power on hours
MTTR*		30 minutes

** Mean Time To Repair*

Electrical and audio specifications

Power Source	Voltage	+5V DC	+12V DC
	Tolerance	+/- 5%	+/- 10%
IO Terminal	Power connector	4-pin +5V, +12V	
	ATAPI terminal	40-pin	
	Audio out	4-pin analog	
	Digital output	2-pin	
Audio	No. of channels	2 (stereo)	
	Sampling frequency	44.1 kHz	
	Quantization	16 bits	
	Distortion	0.2% max. (at 1 kHz)	
	S/N ratio	70 dB	
	Line Out	0.70 V rms (typical)	

DVD region codes

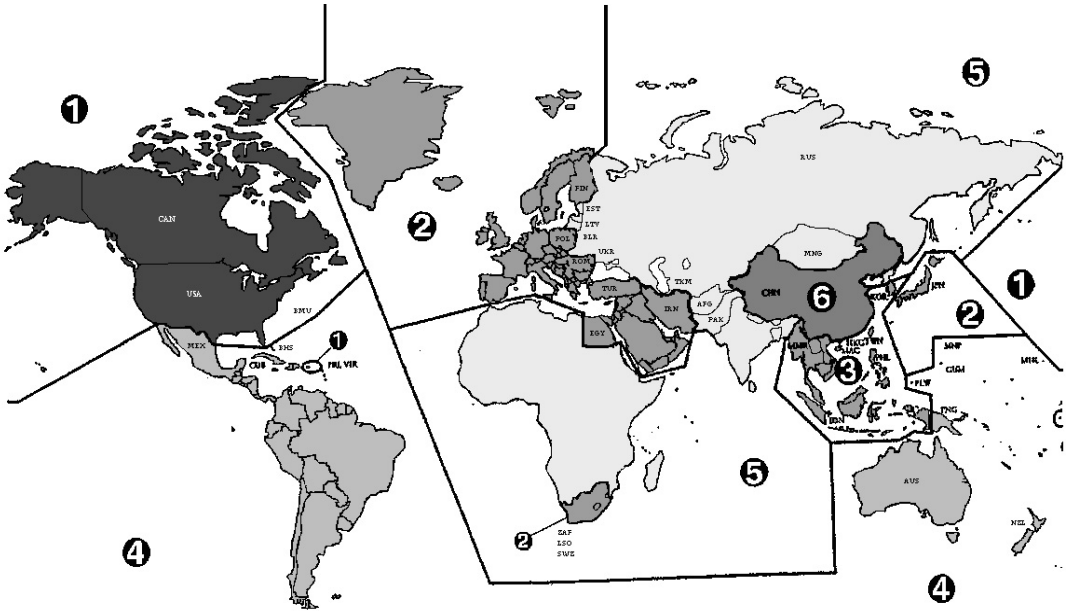
DVDs and DVD players are regionally coded to protect the DVD industry from piracy and unfair promotions. For example, a DVD encoded for Region 1 may only be played on a Region 1 DVD-ROM or DVD player. Regional codes on DVDs are optional. All DVD players can play DVDs with no specified region code.

Follow the instructions to play a regionally-coded DVD on the drive.

1. Check the region code of the DVD, then insert the disc into the drive.
2. When the DVD playback prompts you to enter your country/location, select a country/location within the region code of the DVD. Refer to the map and table below.

   You are only allowed to change your country/location up to five times. This limitation makes the drive adaptable for use in many regions while maintaining compliance with RPC-II regulations.

The ability to switch from one region to another is not an ongoing feature. Set the drive to your local region to avoid incorrect setting.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PRI VIR
BMU
RUS
FIN
EST
LTV
POL
BLR
UKR
ROM
TUR
IRN
IRQ
AFG
PAK
TKM
MNG
CHN
JPN
PRK
KOR
TWN
PHL
MNP
GUM
PLW
IDN
PNG
AUS
NZL
ZAF
LSO
SWZ

Region Code	Area
1	U.S., U.S. Territories, Canada
2	Europe, Middle East, Japan, Egypt, S. Africa, Greenland
3	South Eastern Asia, Taiwan, Hong Kong, Korea
4	Australia, New Zealand, Latin America, Pacific Islands
5	Russia, Eastern Europe, India, Africa, North Korea
6	China